

In the Claims:

Please amend Claims 1, 10, 12 and 13 as indicated below. The status of all claims is as follows:

1. (Currently Amended) A magnetic recording medium comprising:  
at least one exchange layer structure; and  
a magnetic layer formed on said exchange layer structure,  
said exchange layer structure comprising a ferromagnetic layer, and a non-magnetic coupling layer provided on said ferromagnetic layer and under said magnetic layer,  
said ferromagnetic layer and said magnetic layer having antiparallel magnetizations,

said non-magnetic coupling layer being made of a Ru-M3 alloy, where M3=  
M3 is an element or alloy thereof selected from a group consisting of Co, Cr, Fe, Ni, and Mn, Mn or alloys thereof, and a lattice mismatch between said non-magnetic coupling layer and said magnetic layer and said ferromagnetic layer respectively disposed above and below said non-magnetic coupling layer is adjusted to approximately 6% or less by addition of M3.

2. (Original) The magnetic recording medium as claimed in claim 1, wherein said non-magnetic coupling layer has a thickness in a range of 0.4 to 1.0 nm.

3. (Previously Presented) The magnetic recording medium as claimed in claim 1, wherein said ferromagnetic layer is made of a material selected from a group consisting of Co, Ni, Fe, Ni alloys, Fe alloys, and Co alloys.

4. (Previously Presented) The magnetic recording medium as claimed in claim 1, wherein said magnetic layer is made of a material selected from a group consisting of Co and Co alloys.

5. (Cancelled)

6. (Previously Presented) The magnetic recording medium as claimed in claim 1, wherein an amount of the element M3 added to Ru is 50 at% or less for Co, 50 at% or less for Cr, 60 at% or less for Fe, 10 at% or less for Ni, and 50 at% or less for Mn.

7-9. (Cancelled)

10. (Currently Amended) A magnetic storage apparatus comprising:  
at least one magnetic recording medium comprising at least one exchange layer structure, and a magnetic layer formed on said exchange layer structure,

said exchange layer structure comprising a ferromagnetic layer, and a non-magnetic coupling layer provided on said ferromagnetic layer and under said magnetic layer,

said ferromagnetic layer and said magnetic layer having antiparallel magnetizations,

said non-magnetic coupling layer being made of a Ru-M3 alloy, where ~~M3=~~ M3 is an element or alloy thereof selected from a group consisting of Co, Cr, Fe, Ni, and Mn, Mn or alloys thereof, and a lattice mismatch between said non-magnetic coupling layer and said magnetic layer and said ferromagnetic layer respectively disposed above and below said non-magnetic coupling layer is adjusted to approximately 6% or less by addition of M3.

11. (Cancelled)

12. (Currently Amended) The magnetic recording medium as claimed in claim 3, wherein said ferromagnetic layer is made of a Co alloy selected from a group consisting of CoCrTa, CoCrPt and CoCrPt-M2, where ~~M2=~~ M2 is an element or alloy thereof selected from a group consisting of B, Mo, Nb, Ta, W, and Cu, or alloys thereof.

13. (Currently Amended) The magnetic recording medium as claimed in claim 4, wherein said magnetic layer is made of a Co alloy selected from a group

consisting of CoCrTa, CoCrPt and CoCrPt-M4, where M4= M4 is an element or alloy thereof  
selected from a group consisting of B, Mo, Nb, Ta, W, and Cu, or alloys thereof.

14. - 15. (Cancelled)